

CLAIMS

We claim:

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1. In a vehicle comprising a first device and a second device, an active
network communicatively coupling the first and second devices, the active network
having an overall communication capability and a portion of the overall
communication being reserved for communication usage by the first device.

2. The vehicle of claim 1, the portion being exclusively reserved for the first
device.

3. The vehicle of claim 1, wherein an unreserved portion of the overall
communication capability is shared by each of the first and second devices.

4. The vehicle of claim 1, wherein the portion comprises a plurality of
communication paths between the first device and the second device.

5. The vehicle of claim 1, wherein the portion is reconfigurable.

6. The vehicle of claim 5, wherein the portion is reconfigurable responsive to a
condition of the active network.

7. The vehicle of claim 6, wherein the condition is one of over-capacity and
under-capacity.

8. The vehicle of claim 6, wherein the condition is a failure in the active network.

5 9. The vehicle of claim 1, wherein the active network comprises a packet data network.

10 10. The vehicle of claim 1, wherein the active network comprises a plurality of active network elements coupled by connection media, and wherein each of the plurality of active network elements is selected from the group of active network elements comprising: a bridge, a switch and a router.

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11. Within a vehicle, an active network for communicating data between a first device and a second device within the vehicle, the active network comprising:

a data interface to each of the first device and the second device for coupling the first device and the second device, respectively, to the active network, wherein the data interface operates to accept data from or deliver data to the device, respectively, independently of the functionality of the respective device;

a plurality of coupled active network elements coupling the interfaces; and
a portion of the active network elements, the portion being reserved for communication usage by the first device.

12. The active network of claim 11, wherein the portion is exclusively reserved for the first device.

13. The active network of claim 11, wherein the portion includes a plurality of communication paths between the first device and the second device.

14. The vehicle of claim 11, wherein the portion is reconfigurable.

15. The vehicle of claim 14, wherein the portion is reconfigurable responsive to a condition of the active network.

16. The vehicle of claim 15, wherein the condition is one of over-capacity and under-capacity.

17. The vehicle of claim 15, wherein the condition is a failure in the active network.

18. In a vehicle, a method of communicating data between a first device and a second device within the vehicle, the method comprising:

communicatively coupling the devices utilizing a data transport medium, the data transport medium defining a plurality of potential communication paths between the first device and the second device;

reserving a portion of the plurality of potential communication paths for communications from or to the first device;

transporting data from or to the first device using the data transport medium inclusive of the portion and

transporting data from or to the second device using the data transport medium exclusive of the portion.

19. The method of claim 18, wherein the step of reserving a portion of the data transport medium comprises reserving at least one communication path between the first device and the second device.

20. The method of claim 18, further comprising the step of reconfiguring the portion.

21. The method of claim 18, further comprising the step of reconfiguring the portion responsive to a condition of the active network.